

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1 Claim 1 (currently amended): An inspection method of a terminal metal fitting having
2 a wire connecting portion having a wall carrying ~~an~~ a sheathed electric wire and a crimping piece
3 with a mirror reflection surface bent toward the wall so as to fasten the electric wire between the
4 crimping piece and the wall, comprising the steps of:

5 illuminating the wire connecting portion fastened to the electric wire from a first specific
6 direction;

7 taking an image of the wire connecting portion from a second specific direction;

8 binary-processing the image of the wire connecting portion ~~being illuminated~~;

9 calculating whether an area is less than or not less than a threshold value in image
10 information obtained by the binary processing; and

11 judging good or bad of a fastening condition of the electric wire by the crimping piece on a
12 basis of the area.

1 Claim 2 (currently amended): An inspection system of a terminal metal fitting having
2 a wire connecting portion having a wall carrying an electric wire and a crimping piece bent toward
3 the wall so as to fasten the electric wire between the crimping piece and the wall, comprising:

4 a light source to illuminate the wire connecting portion;

5 an image-taking means to take an image of the wire connecting portion;

6 a dark box, with a dark inner surface, to cover at least an object side of the image-taking
7 means, the light source, and the terminal metal fitting for preventing outer light from shining on the
8 wire connecting portion; and

9 a judging means to binary-process an image of the wire connecting portion being illuminated
10 by the light source and judge whether good or bad as to a fastening condition of the electric wire by
11 the crimping piece on a basis of an area being less than or not less than a threshold value in image
12 information obtained by the binary processing,

13 wherein the image-taking means and the light source are arranged so that the light thrown
14 from the light source and reflected by the crimping piece with a mirror reflection surface does not
15 enter the image-taking means, and a sheathing portion of the electric wire is a light color.

1 Claim 3 (original): The inspection system of the terminal metal fitting as set forth in claim
2 2, wherein

3 the image-taking means faces the wall of the wire connecting portion to which the electric
4 wire is fastened,

5 and the light source is arranged at a position of making an angle θ between a line connecting
6 the light source with the crimping piece and a direction of the electric wire fastened to the wire
7 connecting portion so that the light thrown from the light source and reflected by the crimping piece
8 does not enter the image-taking means.

1 Claim 4 (original): The inspection system of the terminal metal fitting as set forth in claim
2 3, wherein
3 the light source is arranged at a position of making the angle θ of not more than 45 degrees.

1 Claim 5 (currently amended): An inspection system of a terminal metal fitting having
2 a wire connecting portion having a wall carrying an electric wire and a crimping piece bent toward
3 the wall so as to fasten the electric wire between the crimping piece and the wall, comprising:

4 a light source to illuminate the wire connecting portion;
5 an image-taking means to take an image of the wire connecting portion;
6 a judging means to binary-process an image of the wire connecting portion illuminated by
7 the light source and judge good or bad of a fastening condition of the electric wire by the crimping
8 piece on a basis of an area being less than or not less than a threshold value in image information
9 obtained by the binary processing,

10 wherein the image-taking means and the light source are arranged so that the light thrown
11 from the light source and reflected by the crimping piece with a mirror reflection surface enters the
12 image-taking means.

1 Claim 6 (original): The inspection system of the terminal metal fitting as set forth in claim
2 5, wherein
3 the image-taking means faces the wall of the wire connecting portion to which the electric
4 wire is fastened,

5 and the light source faces the wall of the wire connecting portion, to which the electric wire
6 is fastened, near the image-taking means so that the light thrown from the light source and reflected
7 by the crimping piece enters the image-taking means.

1 Claim 7 (previously presented): The inspection system of the terminal metal fitting as
2 set forth in any one of claims 2-6, wherein the judging means judges whether good or bad as to a
3 fastening condition of the electric wire on a basis of an area being less than or not less than a
4 threshold value in an inspection area in the image of the wire connecting portion taken by the image-
5 taking means, the inspection area being provided for each crimping piece and including at least
6 partial image of the crimping piece.

1 Claim 8 (original): The inspection system of the terminal metal fitting as set forth in claim
2 7, wherein
3 the inspection area is positioned over a longitudinal axis of the electric wire fastened to the
4 wire connecting portion.